

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/002352

International filing date (day/month/year)
01.06.2004

Priority date (day/month/year)
05.06.2003

International Patent Classification (IPC) or both national classification and IPC
F03D9/00, F03D3/00, F03D3/02, F03D3/04, F03D3/06, H02K16/00, H02K7/18

Applicant
INTEC POWER SYSTEMS LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

EV 726255639 ^{IPS} DOCUMENT

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

10/559589

International application No.
PCT/GB2004/002352

IAP9 Rec'd PCT/PTO 02 DEC 2005

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This opinion has been established on the basis of a translation from the original language into the following language, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
- a. type of material:
- ☐ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material:
- ☐ in written format
- ☐ in computer readable form
- c. time of filing/furnishing:
- ☐ contained in the international application as filed.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/002352

Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3-5,7-9,11,14,15
	No: Claims	1,2,6,10,12,13,16
Inventive step (IS)	Yes: Claims	4,5,7-9
	No: Claims	1-3,6,10-16
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

2. Citations and explanations

see separate sheet

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Re Item V.

- 1 The following documents are referred to in this communication:
- D1 : US 3 697 765 A (CARINI EUGENE P) 10 October 1972 (1972-10-10)
- D2: GB-A-2 341 646 (SHERIDAN BERNARD JOHN) 22 March 2000 (2000-03-22)
- D3: US-A-4 061 926 (PEED PAUL V) 6 December 1977 (1977-12-06)

2 INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT. Document D1 discloses (the references in parenthesis applying to this document; see figures):

a generator for generating electric current comprising current generating means comprising first generator means and second generator means (40, 46 and 48) arranged to generate electric current in response to relative rotation between said first and second generator means;

a first rotary part having vanes (20), said first rotary part arranged to rotate in a first direction around an axis when exposed to a flow of air perpendicular to said axis;

said rotary part operatively connected to a first of said first and second generator means; wherein

said generator further comprises first rotary part barrier means arranged in stationary relation to said first rotary part (see col. 4, lines 5-7), said barrier means configured to provide a barrier sector comprising a barrier around a portion of the vane free edge path of said first rotary part, said barrier extending between an air inlet region in which a portion of the vane front edge path is exposed to allow the underside of a vane to be exposed to a flow of air, and an air outlet region in which a portion of the vane front edge path is exposed to allow the underside of a vane to be exposed following rotation through said barrier sector to allow the discharging of air,

said barrier means configured to inhibit air which follows a vane rotating into said barrier sector from discharging outside of the vane free edge path whilst said vane is rotating through said barrier sector.

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3 DEPENDENT CLAIMS 2, 3, 6, 10-16

Dependent claims 2, 3, 6, 10-16 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

3.1 In particular, document D1 further shows the technical features of claims 2, 6, 10, 12, 13 and 16 (see figures and the passages cited in the search report) thus rendering the subject matter of claims 2, 6, 10, 12, 13 and 16 not new in the sense of Article 33(2) PCT.

3.2 The features of dependent claims 3, 14 and 15 have already been employed for the same purpose in a similar generator, see document D2, figures. It would therefore be obvious to the person skilled in the art, to apply these features with corresponding effect to a generator according to document D1, thereby arriving at a generator according to claims 3, 14 and 15. The subject-matter of claims 3, 14 and 15 does not involve an inventive step in the sense of Article 33(3) PCT.

3.3 The features of dependent claim 11 have already been employed for the same purpose in a similar generator, see document D3, figure 2 (the rotary part binding means 42, 46, 48 between the vanes). It would therefore be obvious to the person skilled in the art, to apply these features with corresponding effect to a generator according to document D1, thereby arriving at a generator according to claim 11. The subject-matter of claim 11 does not involve an inventive step in the sense of Article 33(3) PCT.

4 DEPENDENT CLAIMS 4, 5, 7-9

Claims 4, 5, 7-9 are new and inventive (Article 33(2) and (3) PCT).

The combination of the features of dependent claim 4 shows a generator wherein the axial shaft comprises sections each releasably engageable with at least one other section. This feature facilitates the transport, construction and maintenance of the wind powered generator and facilitates the replacement of a section or component thereof.